



Technical Assistance Paper No. 14

SUPPORTING OUTDOOR PLAY and EXPLORATION for INFANTS and TODDLERS



EARLY HEAD START
National Resource Center

Technical Assistance Paper No. 14
Supporting Outdoor Play and Exploration for Infants and Toddlers

This document was developed by the staff of the Early Head Start National Resource Center in collaboration with the Office of Head Start. The contents of the paper are not intended to be an interpretation of policy.

Early Head Start National Resource Center
1255 23rd Street, NW, Suite 350
Washington, DC 20037

Phone: 202-638-1144
Fax: 202-638-0851
<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/center>

U.S. Department of Health and Human Services
Administration for Children and Families
Office of Head Start
2013

Prepared for the Office of Head Start, under contract # HHSP23320100009YC, by the Early Head Start National Resource Center at ZERO TO THREE.

INTRODUCTION

Head Start and Early Head Start (EHS) have long recognized the importance of outdoor play experiences and appropriate, safe outdoor play spaces for young children. Two Head Start Program Performance Standards—1304.21(a)(5)(i) (center-based settings) and 1304.21(a)(6) (home-based settings)—specifically address providing time and opportunities for outdoor active play and guidance in the safe use of equipment and materials. A number of standards focus on the outdoor play space.¹ Still others, although not specific to the outdoors, speak to developmental and learning opportunities for infants and toddlers that could easily take place outdoors, thus taking advantage of the unique qualities that the outdoors offers.²

But why should we focus on infants' and toddlers' contact with the outdoors? What do the youngest children gain from outdoor experiences? What can EHS and Migrant and Seasonal Head Start (MSHS) leaders do to help staff and families fully engage infants and toddlers in outdoor play and exploration in center-based, family child care and home-based programs? This technical assistance paper explores the benefits of outdoor time for infants and toddlers and provides suggestions for

creating outdoor play spaces, safety considerations, and strategies and policies that support this important part of quality infant–toddler programming.

THE CURRENT STATE OF OUTDOOR PLAY AND EXPLORATION IN THE UNITED STATES

According to research in the past 10 years,³ young children are spending less time outdoors engaging in active play and exploring the natural world. Researchers have identified a number of reasons for this decline, including: adult fears about crime and safety; increased use of television, computer games, DVDs, and other digital media; more time spent indoors in structured activities; child care arrangements with limited free time; and loss of natural habitats.

There is growing consensus among educators, health and mental health professionals, and other child advocates that this trend has significant adverse effects on young children's health and development. For example, Richard Louv, a child advocacy expert, worries that children are disconnecting from the natural world, a condition he calls "nature-deficit disorder."⁴ According to his research, nature-deficit disorder contributes to a rise in obesity, depression, and attention disorders, and as young children "spend less and less of their lives in natural surroundings, their senses narrow, physiologically and psychologically . . ."⁵ Childhood obesity is of particular concern. Studies⁶ show that, as young children's lives become more restricted and inactive, they suffer from obesity in record numbers. Obesity is a major health concern because it is connected to diabetes and other significant health problems. Concerned health professionals, educators, and parents are looking for ways to reverse this alarming trend.



¹Head Start Program Performance Standards, 44–45.

²*Ibid.*, 28–29.

³Clements, "Status of Outdoor Play," 68; Ginsberg, "No Child Left Inside," 3–5; Hastie and Howard, "Prescription for Healthy Kids"; The Henry J. Kaiser Family Foundation, "New Study"; Thigpen, "Outdoor Play: Combating Sedentary Lifestyles," 19–20.

⁴Louv, *Last Child in the Woods*.

⁵*Ibid.*, Introduction.

⁶Milano, "Defense Against Childhood Obesity," 6; Head Start, *Body Start*, "Outdoor Play Benefits."

EHS and MSHS programs play an important role in strengthening infants' and toddlers' connections to the outdoors. Program leaders do this by working collaboratively with staff and families to fully embrace and support outdoor play and exploration. A key part of that work is increasing awareness of how outdoor play and exploration benefit young children.

BENEFITS OF OUTDOOR PLAY AND EXPLORATION

Children can . . .

*Encounter the way that sunshine splinters
into a hundred fragments of light as it streams
through a willow hut . . .*

*feel the soft touch of a summer breeze as it
whispers through tallgrass prairie . . .*

*smell the scent of fresh rain while splish
splashing through a puddle . . .*

wonder at a strand of dew drops . . .

*hear the thwump, thwump, thwump of a low
flying bird.*

(Used with permission from Beth Walling
[EHS National Resource Center, 2011])



Going outside improves children's health

There is strong evidence that young children experience significant health benefits from spending time outdoors. For example:

- Young children are more likely to engage in the kinds of vigorous, physical play that strengthens their hearts, lungs, and muscles.⁷ Regularly spending time outdoors increases opportunities for infants and toddlers to freely crawl, toddle, walk, climb, and run. In addition to improving large motor skills, vigorous physical activity improves children's overall fitness level. It is also an important defense against childhood obesity.
- Spending time outdoors strengthens young children's immune systems. They experience fewer illness-related absences from child care when they have daily opportunities to play outside.⁸
- There is increasing concern that infants, toddlers, and older children are deficient in vitamin D.⁹ Vitamin D is needed to absorb calcium, which strengthens teeth and bones. One of the easiest, most natural, and cost-effective ways of getting vitamin D is through a few minutes of sunshine each day.
- Spending time outdoors positively affects young children's sleeping patterns. Natural sunlight helps regulate and balance sleep–wake cycles.¹⁰
- Children who play outdoors are less likely to be nearsighted. Direct exposure to the bright, natural light that comes from being outside may stimulate developing eyes in important ways such as “maintaining the correct distance between the lens and the retina—which keeps vision in focus.”¹¹
- Children who are diagnosed with attention–deficit/hyperactive disorder (ADHD) and who regularly play in outdoor environments with lots of green (e.g., open, grassy fields; trees), have milder ADHD symptoms than those who play

⁷Thigpen, “Outdoor Play: Combating Sedentary Lifestyles,” 19.

⁸Sennerstam, “Absence Due to Illness,” 88.

⁹“Children Low in Vitamin D”; Huh and Gordon, “Vitamin D Deficiency in Children,” 161.

¹⁰Naturopathic Health Foundations, “Time Spent Outdoors.”

¹¹Aamodt and Chang, “Sun Is Best Optometrist.”

indoors or in built outdoor environments such as playgrounds with stationary playground equipment.¹²

- Time spent outdoors provides children with protection against life stresses and a general sense of peace and well-being.¹³
- There is even some evidence that playing in the dirt exposes children to a specific type of bacteria that may reduce anxiety and improve the ability to learn new tasks!¹⁴

Going outside strengthens children's development

Young children also benefit developmentally from outdoor play and exploration. Researchers have identified a number of developmental benefits,¹⁵ including the following:

- Increased creativity and imagination;
- Development of a sense of wonder (wonder is an important motivator for lifelong learning);
- Increased social interactions between children;
- Enhanced opportunities to make decisions, solve problems, and collaborate with peers, which also promote language and communication skills;
- Improved awareness, reasoning, and observation skills; and
- Positive effects on children's ability to focus and pay attention.

Going outside builds children's connection to nature

In the outdoors, infants and toddlers learn about nature and begin to develop a connection with and appreciation for the natural world. With the

support of caring adults, infants and toddlers experience and learn about weather and seasons and discover plants, bugs/insects, and wildlife that live and grow in their communities. They learn about life cycles and how plants and animals depend on each other for survival.¹⁶ They learn that nature is everywhere and that everyone is a part of nature.¹⁷

These early outdoor experiences are important because attitudes about nature are formed early. Infants' and toddlers' positive experiences with nature will likely play a part in how they come to value and care for the natural environment as they get older and throughout their lives.¹⁸ These experiences may also be important from a more basic human level. Biologist Edward O. Wilson's *biophilia* hypothesis suggests that humans are born with an attraction to nature and that the desire to connect begins in early childhood.¹⁹ Enabling infants and toddlers to explore and enjoy the outdoors acknowledges and honors this inborn attraction.

Going outside extends curriculum for infants and toddlers

Spending time outdoors is a rich and important part of the daily curriculum for infants and toddlers. From the very beginning, young children satisfy their curiosity by exploring through their senses; being outside "presents a new world of sights, sounds, smells, and tactile experiences."²⁰ Regardless of whether children live, in urban, suburban, or rural communities, the outdoor world provides opportunities to observe, discover, and learn that are not available indoors.

The following are examples of concepts and skills that young children can learn through outdoor experiences.

¹²University of Illinois at Urbana-Champaign, "'Green time' Linked to Milder Symptoms."

¹³White, "Young Children's Relationship With Nature."

¹⁴American Society of Microbiology, "Can Bacteria Make You Smarter?"

¹⁵Moore and Cooper Marcus, "Healthy Planet, Healthy Children," 157-158; White, "Young Children's Relationship With Nature."

¹⁶Torquati et al., "Environmental Education," 8.

¹⁷Ibid., 10.

¹⁸White, "Young Children's Relationship With Nature."

¹⁹Shillady, *Young Children and Nature*, 2; David Orr, *The Biophilia Hypothesis*.

²⁰Thigpen, "Outdoor Play: Combating Sedentary Lifestyles," 19.

Social–emotional

Infants and toddlers learn to play with each other when they take turns using pails and shovels, share a ride in a wagon, and chase each other. Through direct hands-on experiences, young children learn to be gentle with living things and with each other. “Deep bonds can form between children or child and adult when they share experiences with nature. When children have daily opportunities to care for plants, trees, animals, and insects, they practice nurturing behaviors that help them interact in kind and gentle ways with people as well.”²¹

Physical

Because outdoor play spaces are often more varied and less structured than indoor spaces,²² infants and toddlers have more freedom of movement to develop their gross motor skills in novel ways such as crawling or rolling on grassy hills, standing and balancing on bumpy or unlevel surfaces, and jumping over puddles and sidewalk cracks. Small-motor muscles are developed as children pick up and fill containers with natural objects and materials and dump them out, hold paintbrushes as they paint walls with water, and carefully pick up bugs and worms using a pincer grasp.²³

Cognitive

Contact with the outdoors helps infants and toddlers learn concepts such as cause and effect and making connections. As they experience and practice dressing and undressing, infants and toddlers learn which clothes to wear for different types of weather.²⁴ They learn that the sun dries puddles and melts snow, and that wind makes things move. Infants and toddlers learn important science concepts as they explore the properties of natural objects and materials and notice how things are the same and different, experiment with using

tools (for example, shovels and sticks) for different purposes, and predict if and where they will see worms after it rains. They gain spatial awareness (a foundational geometry concept) as they move their bodies through space in different ways and at different speeds, and observe the world from different perspectives—lying on their backs on a blanket, standing on top of a hill, or swinging back and forth in a swing or hammock.²⁵

Language

Infants and toddlers can use their “outdoor” voices without disturbing others as well as their “indoor” ones.²⁶ As adults converse with them about the outdoor environment, infants and toddlers learn new words, use those words to talk about interesting things they see, and ask questions. They notice different sounds and learn to identify and tell them apart (noticing and discriminating sounds is a foundational skill for later literacy development). Books take on an extended role when adults help children begin to connect ideas in books, such as fictional animals, with experiencing live animals outdoors.²⁷

To sum up, access to the outdoors and time spent in outdoor play and exploration is important to the health, development, and well-being of infants and toddlers. The next two sections of this paper discuss considerations for policies, practices, and strategies to support outdoor time and play.



²¹Rosenow, “Learning to Love the Earth,” 4.

²²Burdett and Whitaker, “Resurrecting Free Play,” 48.

²³Trister Dodge et al., *The Creative Curriculum*, 366; Post et al., *Tender Care and Early Learning*, 253.

²⁴Trister Dodge et al., *The Creative Curriculum*, 366.

²⁵Post et al., *Tender Care and Early Learning*, 253.

²⁶*Ibid.*

²⁷Trister Dodge et al., *The Creative Curriculum*, 366.

CONSIDERATIONS FOR CREATING SAFE OUTDOOR PLAY SPACES

During an outdoor socialization experience, 18-month-old Carrie toddles over to the vegetable garden that a group of home-based families planted during a series of socializations. Nadine (her mom), Lawrence (her dad), and Tanya (their home visitor) follow her. Nadine asks Carrie if she would like to taste a pea pod. Carrie smiles but doesn't respond. Tanya bends down and picks a pea pod. She encourages Nadine and Lawrence to do the same. Tanya says, "Watch! Your mommy, daddy, and I are going to eat a pea pod!" They bite into the pods. "Hmmm," says Tanya, "this pea pod is good and crunchy!" "My pea pod tastes so sweet! You would like it, Carrie. Want to try one?" asks Nadine. Carrie looks at her mom's face, reaches her hand out, and plucks a plump pea pod off the vine. She takes a bite and smiles as she chews. "Pea pa," she says. "Do you like it?" asks Lawrence. "I think you do. You're smiling!" "Pea pa," says Carrie again. Nadine, Lawrence, and Tanya smile at each other. Carrie has tried a new food and said a new word!

What makes a good outdoor play space for infants and toddlers? Good outdoor play spaces:

- Provide safe but stimulating places to play and explore;
- Accommodate the differing needs, skills, and interests of young infants, mobile infants, and toddlers, including those with disabilities;
- Support nurturing adult-child interactions;
- Accommodate adult needs for comfort;
- Reflect staff and family beliefs, values, and culture; and
- Incorporate natural elements and native plant life.



As in the scenario given earlier, program leaders, staff, and families consider what they want infants and toddlers to experience in the outdoor space. They decide on the materials, equipment, and other space design elements that support these experiences as well as fit the size, shape, and physical features of the space and the climate of the location. In other words, programs individualize their outdoor play spaces. Whether programs modify an existing space or create a new one, designing outdoor play spaces provides a wonderful opportunity to involve families and collaborate with local resources such as agricultural extension agencies, plant nurseries, landscape professionals, playground architects, artists, civic organizations, and businesses.

The site design chapter of the *Head Start Design Guide* (pp. 51–65) provides important guidance for the design of safe and engaging outdoor play spaces, including considerations for infants and toddlers. Although the information is specific to center-based programs, home-based and family child care program leaders, staff, and families may also find the information useful in thinking about ways to enhance backyards, side yards, front yards, and outdoor space that is set aside for group socialization events. In addition, the Appendix of this paper contains additional outdoor play space design considerations that supplement the

information in the *Head Start Design Guide*. Again, programs that are not center based are encouraged to review the information and consider how the design elements might apply to their particular outdoor spaces.

A closer look at safety considerations

Perhaps the most common concern—and one that often limits outdoor play—is safety. Infants and toddlers are little scientists. They actively investigate the world using all their senses and seem to have no fear when it comes to exploring with their hands, mouths, or entire bodies. Infants and toddlers do not yet understand what is safe or not safe or how to protect themselves. They need responsible adults to minimize outdoor health and safety risks and eliminate the most dangerous hazards so that they can explore and play safely. At the same time, it is important to realize that no one can completely eliminate every possible risk, nor should every risk be eliminated. Minor bumps, cuts, scrapes, and bruises are a part of normal childhood. Some risk taking is important and necessary for young children’s growth and development.²⁸ Risk taking teaches young children about what is possible as well as what is not. Risk taking also sets the stage for being able to deal with challenging situations later in life. In addition, what is considered safe or unsafe depends, in part, on children’s ages and developmental levels (e.g., sand is considered safe for toddlers but not for young infants, even with close supervision).

There are two important steps that EHS and MSHS program leaders, staff, and families may take to balance outdoor play and exploration with safety. First, reach a common understanding of what it means to keep infants and toddlers healthy and safe while providing appropriate challenges (identify the benefits of risk taking and what are reasonable risks). Second, work with the Health Services Advisory Committee (HSAC) to develop, revise, and implement safe practices and

procedures that support children’s development, respect staff and families’ beliefs about safe outdoor play and exploration, and follow the *Head Start Program Performance Standards*, state/local/tribal licensing, and other protective regulations.

Examples of outdoor policies to consider include:

- A realistic weather policy that defines when it is acceptable and unacceptable to take children outside. Outdoor experiences can take place in all kinds of weather conditions including rain, snow, heat, cold, and wind as long as commonsense precautions and safety procedures are taken. For example, monitor air quality. Some air quality levels pose significant health and safety risks for young children and adults. Do not take children outside when there are blizzards, lightning and thunderstorms, and extreme hot or cold temperatures. Also, include recommendations for the types of clothes for children and adults that are appropriate for different weather conditions, and make extra outdoor clothing available for children and adults. It is the lack of appropriate clothing that often gets in the way of going outside or reduces time spent outside rather than the weather condition itself.²⁹
- Use of sunscreen, bug repellent, and other protective substances.
- Safe, sanitary water play. Note that water-filled wading pools are often not recommended because of serious health and safety issues. However, programs should check with their local or state licensing agency for clarification.
- Appropriate storage of medications that must be available when children are outdoors; for example, EpiPens® and inhalers for children with allergies and asthma that must be maintained at the proper temperatures.
- How to handle insect bites and stings.
- What to have in an outdoor first aid kit (this may vary depending on state or local licensing standards).

²⁸Almeras, *Creating a Nature-Based Culture*, slides 34–36.

²⁹Williams, “*Exploring the Natural World*,” 21.

In addition to outdoor policies, there are other important safety practices and procedures to consider, especially as they relate to the outdoor play space. The following selected practices and procedures, based on the *Head Start Program Performance Standards*, are relevant for center-based programs with dedicated outdoor play spaces. However, program leaders, staff, and families can also consider how they might be applied to backyards, public playgrounds, and other spaces that infants, toddlers, and their families use for outdoor play and exploration.

Maintenance of the outdoor space

Inspect outdoor space and equipment. Look for signs of wear (e.g., loose chains), exposed hazards (e.g., bolts and splinters), and hazardous materials (e.g., poisonous, sharp, or choking hazards; buried objects; animal feces; rodents). Consider having choke tubes on hand to test potential choking hazards. If sand areas or sandboxes are part of the program's dedicated outdoor space, cover them when not in use. When weather conditions warrant, check for ice on equipment, paths, and riding surfaces in wintery conditions and excessively hot equipment and surfaces in sunny, hot conditions.

Appropriate supervision

Appropriate supervision is essential in keeping children safe outdoors. Make sure that the 1:4 staff:child ratio is maintained at all times, that children can always be seen and heard, and that adults use the time to observe children and engage with them rather than visiting with each other. During socializations, parents should interact one on one with their child. As appropriate, ensure the availability of extra adults (e.g., staff, volunteers, floaters, parents) to help take infants and toddlers outside. Monitor the number of children using the space at one time to avoid overcrowding. Accidents and injuries are more likely to happen if children are too crowded. Provide mobile phones or walkie-

talkies to enable quick and easy communication between adults outside, adults inside, and, if necessary, emergency services.

Layout of outdoor space

Similar to placement of active and quiet areas in the indoor environment, consider placing more active areas and equipment away from less active areas. For example, place swings and bike paths toward the edge of the outdoor space. Surround active equipment with a minimum 48-inch use-free zone that is clear of other equipment from every direction. Make sure paths are clear and that young infants are out of the activity flow. Best practice suggests that outdoor space for infants be separate but near space for toddlers, "providing visual and audible connections but limited physical contact."³⁰



³⁰Head Start Design Guide, 58.

Surface drainage

Standing water that does not drain is a hazardous breeding ground for mosquitoes and can transmit germs. Regardless of the type of surface used in the outdoor space, make sure that water can drain off or through it.

Resilient surface

Equipment that children climb on should have resilient surfaces (ones that absorb shock) beneath them; these types of surfaces reduce the impact from falls. Examples of approved resilient surfaces include pre-engineered wood chips, preformed rubber matting, and poured-in-place rubberized surfaces. See pp. 63–64 of the *Head Start Design Guide* for additional information about resilient surfaces.

Protection from excessive wind and direct sunlight

Make sure that there are areas where children are shielded from wind and sunlight. Shade may be provided in a variety of ways, including porches, gazebos, exterior screened rooms, awnings, umbrellas, and trees. Shade areas should provide a minimum of 6 feet of shade in all directions.³¹

Safe, developmentally appropriate equipment

Equipment should be appropriate for the size and skills of infants and toddlers and should meet all relevant safety regulations such as those provided by the Consumer Product Safety Commission for exposed surfaces, spacing (not allowing head entrapment or strangulation), materials, design, and location. Equipment for toddlers should provide enough challenge to keep them interested and engaged.

Some pieces of equipment do not work well for infants and toddlers.³² These include:

- trampolines;
- teeter-totters;
- belt swings;
- single-chain tire swings; and
- enclosed tunnel slides (these tunnels make it difficult to observe children, and a child climbing above the enclosed slide could fall on top of another child at the tunnel exit).

When availability of outdoor play space is an issue

Outdoor play and exploration experiences may take place in different types of spaces and places. However, some programs are challenged with limited outdoor play space, lack of outdoor play space, or few safe places to go. In these situations, it is especially important for program leaders, staff, and families to find ways of providing infants and toddlers with experiences that connect them with nature and opportunities for some active outdoor play and exploration. Although there may be no easy answers, it is still important to figure out what might be reasonable and appropriate for programs and families, given less-than-ideal circumstances. Here are some possible options:³³

- Use sidewalks as paths for wheeled toys and equipment.
- Use sides of buildings as art walls.
- Provide *loose parts* (see sidebar) to transform the space.
- Add logs, tree stumps, and smooth boulders to create new spaces and provide large-motor experiences.
- Use neighborhood resources such as recreation centers, parks, open fields, and school or public playgrounds. Create a “playground-in-a-box”;

³¹*Ibid.*, 63.

³²Greenman et al., Prime Times, 297; Head Start Design Guide, 58.

³³Greenman, Caring Spaces, Learning Places, 321; Greenman et al., Prime Times, 298, 322.

for example, a wheeled utility cart filled with blankets, a parachute, milk crates, balls, and other toys and equipment that can be taken to a more open space.

- Take children on short outings using wagons, buggies, and strollers. Allow children who can walk to do so for at least part of the time so that they get the benefit of the physical exercise.
- Locate and use community gardens.
- Plant flowers in flower boxes and small gardens in wash tubs that are safely accessible to children and adults.
- Hang bird feeders, wind chimes, and banners outside windows where children can see them.
- Bring nature inside. For example, grow potted plants in small containers and, as appropriate, allow children to help care for the plants. Put buckets or other containers outside when it rains or snows, and then bring them in to see how much rain or snow was collected. Where possible and safe for children, open windows to allow fresh air to come in. Provide safe, natural objects and materials for infants and toddlers to explore under supervision, such as pine cones, small tree cookies (cross-sections of branches that show growth rings), twigs, leaves, snow, dirt, acorns, rocks, and shells. Make sure that natural objects are safe and appropriate for the age and developmental level of the children. Keep in mind that objects that may be safe for older toddlers to explore are not safe for younger children.
- Draw children's attention to natural events they can see through the window, such as rain, snow, lightning, or wind blowing leaves. Invite children to touch window panes to see if they are warm or cold. Point out and describe changes in outdoor conditions; for example, how the amount of shady or sunny places changes depending on the time of day or how the light changes when clouds cover the sun.

Loose parts

Staff and families, whether in center-based, home-based, or family child care programs, can enhance outdoor play opportunities for infants and toddlers with loose parts.³⁴ The term *loose parts* refers to "easily moved materials that may be used by children while playing."³⁵ For infants and toddlers, loose parts are toys and materials that are safe, not fixed in place, and that can be used in many ways. Loose parts are materials that children collect, put together, mix, separate, stack, fill and dump, and line up. Indoor toys, equipment, and materials that are brought outside are considered loose parts; so are natural materials such as tree cookies, stones, twigs, seed pods, leaves, water, and sand. Other ideas for loose parts include the following:

- fabric;
- rope;
- containers;
- Polyvinyl chloride (PVC) pipes;
- sponges;
- wagons;
- small sleds;
- plastic milk crates;
- backpacks; and
- wide sanded boards that are short enough for toddlers to pick up, carry, or drag.

Loose parts are important for a number of reasons.³⁶ For example, they:

- Encourage children to manipulate the environment and provide opportunities for creativity and problem solving.
- Provide children with age-appropriate materials. Because these materials can be used in a variety of ways, each age group uses the materials in ways that are appropriate for that group.
- Add novelty into the outdoor play environment. This is important for cognitively higher levels of play, such as symbolic play.
- Foster a wide variety of play behaviors, such as dumping and filling; lifting, moving, and carrying; and pretend play, parallel play, and cooperative play.

³⁴Dempsey and Strickland, "Why to Include Loose Parts"; Greenman et al., Prime Times, 297

³⁵Dempsey and Strickland, "Why to Include Loose Parts."

³⁶Ibid.

In some programs, families may be particularly affected by unsafe neighborhood conditions and reluctant to take their children outside as part of the family's daily life. The most important thing to do is to talk with families about what is meaningful, realistic, and possible for them and their children. Some of these suggestions might be appropriate for families to try. In some cases, there may be parks, playgrounds, or other community resources that are safely accessible to families. Visit them with family members. Talk about ways that simple toys and materials such as boxes, pots, small wash tubs, and buckets might be used with children outdoors and where that play could take place, even for a short period of time.

STRATEGIES FOR MAXIMIZING OUTDOOR LEARNING OPPORTUNITIES FOR INFANTS AND TODDLERS

Delora, a family child care provider, sees a small, green lizard perched atop a boulder she has placed in a sunny corner of her yard. She picks up 10-month-old Alicia and points to the reptile. "See the lizard? It's sitting on the boulder. Es una lagartija. Mira como mueve su cola larga." After a moment, the lizard turns and scurries off. Alicia's eyes widen. "The lizard ran away," says Delora. "It moved fast didn't it? I wonder where it went. Let's go look for it." Delora carries Alicia over to the boulder, kneels, and sets her down on the grass. Alicia crawls to the boulder, places her hands on it, and pulls up to standing. They spend a few minutes looking around the boulder. Delora says, "I don't see the lizard, do you?" Alicia looks at Delora, then looks down at the ground. Delora says, "I have an idea. Let's go sit in the hammock and look the picture book we made about our backyard lizards."

The outdoors offers rich learning opportunities for infants and toddlers. Whether in outdoor play spaces, backyards, parks, or on front stoops, these opportunities take shape and place within the context of relationships and interactions between caring, supportive adults and children. Infants and toddlers take their cues from the important adults in their lives; they are more likely to respond positively and explore the outdoor environment when adults plan for, model, and support those explorations. Because staff and families play such an important role in connecting infants and toddlers to nature and the outdoors, it is important for program leaders to consider ways to facilitate and strengthen adult engagement with outdoor play and exploration.



³⁷Almeras, Creating a Nature-Based Culture, slides 24, 32.

Create a program culture that supports outdoor play and exploration

EHS and MSHS professionals typically recognize the importance of creating safe, nurturing, and inviting indoor environments where infants and toddlers can thrive and explore. Much attention is given to how the space is arranged; selecting equipment and materials; and providing appropriate, individualized experiences. Is the same true of the outdoor setting? Is there an explicit emphasis on the importance and value of daily contact with nature and outdoor play and exploration? Do staff and families understand and “buy in” to this aspect of quality programming for infants and toddlers? One way to build support and understanding is to develop a philosophy statement that describes the program’s beliefs.³⁷ Having a defined philosophy statement that is supported by program leadership and policies can guide program practices by providing a framework for intentional planning and teaching. Consider the following process for developing the philosophy statement.

- Solicit input from staff and families. Provide information and resources as needed to facilitate the conversation.
- Involve staff and families in writing and/or reviewing the statement to increase consensus and “buy in.”
- Once it is finalized, post the statement where families and staff can see it. Consider including it in the parent handbook, newsletters, and other documents that describe the program. Make sure it is translated into families’ home languages.
- Share and discuss the statement during new staff and family orientations, staff and parent meetings, home visits, and group socializations.

Hire “outdoor-friendly” staff

Program leaders can identify staff who are excited about outdoor play during the interview process. To learn about what potential staff think about making the most of daily outdoor time, add questions to the interview such as:

- Why is outdoor play important for infants and toddlers?
- How often do you think infants and toddlers should be outside? Why?
- Describe your ideal outdoor play space for infants and toddlers.
- Describe how you plan for outdoor learning opportunities.
- What are your favorite things to do outside? With children?
- What are some challenges to taking infants and toddlers outside? How would you deal with these challenges?
- How would you address families’ concerns about outdoor play such as taking children outdoors in the rain or engaging in messy experiences such as playing with sand and/or water and digging in the dirt?

Some adults are comfortable with the outdoors and interacting with nature. They are willing and eager to facilitate young children’s exploration of natural elements such as nonhazardous plants, animals, and bugs/insects; dirt and mud; rain and snow; water; shells and stones. Some adults are less comfortable or even fearful. For example, some adults have intense, negative reactions to worms, slugs, grasshoppers, praying mantises, and ladybugs (all of which are harmless). Some are afraid of birds. Others do not like messy activities that involve dirt, sand, or mud. Adults who are uncomfortable or fearful may pass their discomfort and fear to young children; in turn, young children may become uncomfortable with, or even afraid of, being outside. All adults have a responsibility to

keep infants and toddlers safe. However, some discomfort and fears are more a matter of personal taste or beliefs rather than actual risk. Program leaders can talk with staff and families about safe exploration of the natural world (what is safe, for whom is it safe) and provide information about plants, animals, and bugs/insects that are safe and not safe to handle. Program leaders may also use supportive strategies such as reflective supervision and coaching to work with staff and family members whose discomfort or fear may interfere with or prevent children's nature explorations.

- Try the following strategies for addressing adult discomfort with the outdoors:
- Invite staff and/or families to reflect on their own childhood experiences with the outdoors.
- Recognize and validate people's fears. It may take more than reassurance that something is safe to increase comfort levels.
- Involve a nurse, HSAC committee member, and any other relevant community members to engage staff and families around comfort with the outdoors.
- Offer staff and families opportunities to "play" with water, dirt, mud, sand, stones, leaves, worms, and other natural substances and elements.
- Celebrate small accomplishments; for example, picking up a worm for the first time, taking appropriately dressed children outside in less comfortable weather, developing a creative use of outdoor space, and planning a creative outdoor experience.

Grow staff and families' understanding of and comfort with outdoor play and learning

When creating professional development plans, make outdoor play and learning a priority. Provide workshops, presentations, and other resources that focus on topics such as the benefits of outdoor play for infants and toddlers, creating safe outdoor play spaces, planning safe but stimulating outdoor play experiences, and addressing staff and family concerns about spending time outdoors with children. Preservice, in-service, staff meetings, parent meetings and trainings, home visits, and group socialization events are ideal times to talk about outdoor play and exploration.

Consider addressing the following aspects of planning and implementing outdoor experiences as part of professional development opportunities.

- Most indoor play experiences and routine care such as meals, diapering, and hand washing can be done outdoors. Planning for outdoor experiences involves the same cycle of activities as planning for indoor ones: Observe children and document observations; analyze observation information; plan experiences based on the analysis; offer the experiences; repeat the cycle. Families are involved in all steps of this process.
- Staff and families can use the same thoughtful and intentional strategies for engaging with infants and toddlers outdoors as they use indoors. For example, they can:³⁸
 - Follow children's leads and change plans entirely to take advantage of unexpected discoveries;
 - Provide physical and emotional support;
 - Describe what children see and do (label objects, actions, and feelings) and ask open-ended questions; and
 - Smile, laugh, and show delight in being with children.

³⁸Post et al., *Tender Care and Early Learning*, 343, 367.

³⁹Trister Dodge et al., *The Creative Curriculum*, 375.

⁴⁰Williams, "Exploring the Natural World," 21.

⁴¹Greenman et al., *Prime Times*, 298.

⁴²Post et al., *Tender Care and Early Learning*, 249–250.

Strategies like these not only strengthen adult-child relationships: They also help infants and toddlers notice and engage with the outdoor environment.

- Some staff and families find it time consuming (and frustrating) to take infants and toddlers outside when the weather requires coats, hats, snowsuits, boots, and mittens. However, dressing is an important routine and part of infant and toddler curriculum. Dressing offers young children a rich language, social-emotional, and self-care learning experience; it is not just a routine to get through quickly on the way to going outside.³⁹ Encourage staff and families to plan and organize ahead of time to make sure they allow enough time for dressing children in outerwear, spending quality time outdoors, undressing indoors, and transitioning to the next daily experience or routine.⁴⁰
- Not all outdoor experiences have to take place within designated outdoor play spaces. If safe to do so, staff and families can take infants and toddlers on neighborhood rides and walks. These outings expose children to new things to see, hear, touch, and smell, and they help children learn about their communities. Emphasize that a successful outing for infants and toddlers is much less about getting to a destination or the distance travelled and much more about slowly exploring every crack, bug, and wall along the way.

When possible, encourage staff and families to plan outings that include time and places where

children are allowed to be out and moving, especially if they are being transported in strollers, buggies, and wagons.⁴¹ Ideally, plan walks and rides in addition to outdoor time in a safe, outdoor play space.⁴² Infants and toddlers benefit from both types of experiences.

- Staff and families may wonder how much time infants and toddlers (and, therefore, adults) should spend outside. Programs typically determine this based on factors such as children's age, length of program day or group socialization event, weather and other safety conditions, or a family's daily schedule. The publication *Preventing Childhood Obesity in Early Care and Education: Selected Standards from Caring for Our Children* suggests the following for center-based programs;⁴³ family child care and home-based programs may also consider how these guidelines might apply in their daily schedules. Note that the amount of time infants and toddlers spend outside may exceed these recommendations.
 - All children, from birth to 6 years old, should participate daily in two to three occasions of active outdoor play, weather permitting.
 - Infants (birth to 12 months old) should be taken outside two to three times per day, as they can tolerate. There is no recommended length of time for these outdoor play experiences.
 - Toddlers (12 months to 3 years old) should be allowed 60 to 90 minutes of outdoor play. These times can be shortened during weather conditions in which children may still play safely outdoors for shorter periods. However, the amount of active indoor time should increase so the total amount of active play (exercise) remains the same.

One way to maximize time for outdoor play is to shift outdoor play schedules depending on the time and season of year. For example, midday, when the sun is highest, might work best when it is cold; early morning may be best in climates where heat builds up later in the day.⁴⁴



³⁹American Academy of Pediatrics, *Preventing Childhood Obesity*, 51.

⁴⁴Post et al., *Tender Care and Early Learning*, 364.

CONCLUSION

Fourteen-month-old Clarence crawls up the side of a gently sloping, grass-covered hill. He stops twice along the way to pull up the grass and throw it up in the air. He watches intently as the wind carries the blades of grass off into the sky. When he gets to the top, he slowly stands up and glances over at his teacher, Angie. She walks over to him and extends her hand. Believing Clarence can physically manage to come down the hill but may need reassurance, Angie smiles. “Are you ready to come down the hill?” Clarence reaches out and grabs Angie’s hand. He looks down and takes one careful step forward. He looks up at Angie. She continues to smile. “That’s it. You’re walking down the hill.” Clarence holds Angie’s hand and slowly makes his way down. “You did it! You walked down the hill!” Angie claps. Clarence squeals happily and claps.

Outdoor play and exploration matter to infants and toddlers. Time spent outdoors helps them begin to connect with and develop an appreciation for the natural environment. The outdoors offers important health and developmental benefits and valuable experiences that are simply not available indoors. With thoughtful planning and supportive practices and policies, programs can provide infants and toddlers with opportunities for active outdoor play, nature exploration, and connections with trusted adults in many ways, even in circumstances that are less than ideal. Working together, EHS and MSHS leaders, staff, and families can offer rich learning opportunities that support children’s development and help them, like Clarence, find success and joy outdoors.



STANDARDS

EHS and MSHS programs are required to meet the Head Start Program Performance Standards. The following standards relate specifically to outdoor active play and outdoor play spaces.

- 1304.21(a)(5)(i) – In center-based settings, grantee and delegate agencies must promote each child’s physical development by providing sufficient time, indoor and outdoor space, equipment, materials, and adult guidance for active play and movement that support the development of gross motor skills.
- 1304.21(a)(6) – In home-based settings, grantee and delegate agencies must encourage parents to appreciate the importance of physical development, provide opportunities for children’s outdoor and indoor active play, and guide children in the safe use of equipment and materials.
- 1304.53(a)(2) – Grantee and delegate agencies must provide appropriate space for the conduct of all program activities (see 45 CFR 1308.4 for specific access requirements for children with disabilities).
- 1304.53(a)(4) – The indoor and outdoor space in EHS or Head Start centers in use by mobile infants and toddlers must be separated from general walkways and from areas in use by preschoolers.
- 1304.53(a)(5) – Centers must have at least 35 square feet of usable indoor space per child available for the care and use of children and at least 75 square feet of usable outdoor play space per child.
- 1304.53(a)(7) – Grantee and delegate agencies must provide for the maintenance, repair, safety, and security of all EHS and Head Start facilities and equipment. (This includes outdoor play areas.)
- 1304.53(a)(8) – Grantee and delegate agencies must provide a center-based environment free of toxins such as cigarette smoke, lead, pesticides, herbicides, and other air pollutants as well as soil and water contaminants. Agencies must ensure that no child is present during the spraying of pesticides or herbicides. Children must not return to the affected area until it is safe to do so.
- 1304.53(a)(9) – Outdoor play areas at center-based programs must be arranged to prevent any child from leaving the premises and getting into unsafe and unsupervised areas. En route to play areas, children must not have access to vehicular traffic without supervision.
- 1304.53(a)(10)(viii) – Indoor and outdoor premises are cleaned daily and kept free of undesirable and hazardous materials and conditions.
- 1304.53(a)(10)(x) – The selection, layout, and maintenance of playground equipment and surfaces minimize the possibility of injury to children.

Standards that address developmental and learning opportunities that could easily take place outdoors can be found in

- 1304.21(a)(3) support social and emotional development
- 1304.21(a)(4) development of each child’s cognitive and language skills
- 1304.21(b) child development and education approach for infants and toddlers

REFERENCES

- Aamodt, Sandra, and Sam Chang. "The Sun Is the Best Optometrist." *New York Times*, June 20, 2011. Accessed July 22, 2011 from <http://www.nytimes.com/2011/06/21/opinion/21wang.html?scp=1&sq=Sandra%20Aamodt&st=cse>.
- Almeras, Bethe. *Creating a Nature-Based Culture in Your Program*. [Webinar]. Early Childhood Investigations Webinars. Accessed September 29, 2011 from <http://www.earlychildhoodwebinars.org/webinar-resources>.
- American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education. *Preventing Childhood Obesity in Early Care and Education Programs: Selected Standards from Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3rd Edition*. 2010. http://nrckids.org/CFOC3/PDFVersion/preventing_obesity.pdf
- American Society for Microbiology. "Can Bacteria Make You Smarter?" *ScienceDaily*, May 25, 2010. Accessed May 5, 2011 from <http://www.sciencedaily.com/releases/2010/05/100524143416.htm>.
- Burdett, Hillary L., and Robert C. Whitaker. "Resurrecting Free Play in Young Children: Looking Beyond Fitness and Fatness to Attention, Affiliation, and Affect." *Archives of Pediatric & Adolescent Medicine* 159 (2005): 46–50. Accessed September 28, 2011 from http://www.childrenandnature.org/downloads/Burdette_LookingBeyond.pdf.
- Clements, Rhonda. "An investigation of the status of outdoor play." *Contemporary Issues in Early Childhood* 5, no. 1 (2004): 68–80.
- Dempsey, Jim, and Eric Strickland. "Staff Workshop Teacher Handout: The 'Whys' Have It! Why to Include Loose Parts on the Playground." *Scholastic*, April 1999. Accessed July 15, 2011 from <http://www2.scholastic.com/browse/article.jsp?id=12067>.
- Early Head Start National Resource Center. *News You Can Use: Outdoor Spaces*, March 2012. <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start/early-learning/curriculum/NewsOutdoor.htm>.
- Ginsberg, Kenneth. "No Child Left Inside: Reconnecting Kids with the Outdoors." Testimony of Kenneth Ginsberg, MD, MS Ed, FAAP, on behalf of The American Academy of Pediatrics to the Natural Resources Subcommittee on National Parks, Forests and Public Lands and Subcommittee on Fisheries, Wildlife and Oceans, May 24, 2006. Accessed July 15, 2011 from <http://www.aap.org/advocacy/washing/Testimonies-Statements-Petitions/05-24-07-Ginsburg-Play-Testimony.pdf>.
- Greenman, Jim. *Caring Spaces, Learning Places: Children's Environments that Work*. Redmond, WA: Exchange Press, 2005.
- Greenman, Jim, Anne Stonehouse, and Gigi Schweikert. *Prime Times: A Handbook for Excellence in Infant and Toddler Programs*. 2nd ed. St. Paul, MN: Redleaf Press, 2008.
- Hastie, Kyla, and Shani Howard. "A Prescription for Healthy Kids: Nature & Play." Athens Parent.com, March/April 2007. Accessed July 15, 2011 from <http://www.athensparent.com/articles/featuregen/natureplay.html>.
- Head Start Body Start. "Outdoor Play Benefits." Reston, VA: Head Start Body Start, National Center for Physical Development and Outdoor Play. <http://www.aahperd.org/headstartbodystart/activityresources/upload/benefits-of-outdoor-play.pdf>.
- Head Start Design Guide: A Guide for Building a Head Start Facility*. 2nd ed. Washington, DC: U.S. Department of Health and Human Services, Administration on Children and Families, Administration for Children, Youth and Families, Head Start Bureau. 2005. http://eclkc.ohs.acf.hhs.gov/hslc/resources/ECLKC_Bookstore/PDFs/Head%20Start%20Design%20Guide%20-%20Second%20Edition.pdf.
- Head Start Program Performance Standards, 45 CFR Chapter XIII*. Washington, DC: U.S. Department of Health and Human Services, Administration on Children and Families, Office of Head Start, 2009.
- The Henry J. Kaiser Family Foundation. "New Study Finds Children Age Zero to Six Spend As Much Time With TV, Computers and Video Games As Playing Outside." Washington, DC: Kaiser Family Foundation, October 28, 2003. Accessed July 15, 2011 from <http://www.kff.org/entmedia/entmedia102803nr.cfm>.

Huh, Susanna Y., and Catherine M. Gordon. "Vitamin D Deficiency in Children and Adolescents: Epidemiology, Impact and Treatment." *Reviews in Endocrine & Metabolic Disorders* 9 (2008): 161–170.

Keeler, Rusty. *Natural Playscapes: Creating Outdoor Play Environments for the Soul*. Redmond, WA: Exchange Press, 2008.

Lally, J. Ronald, Jay Stewart, and Deborah Greenwald. *A Guide to Setting Up Environments*. 2nd ed. Sacramento, CA: California Department of Education and WestEd, 2009.

Louv, Richard. *Last Child in the Woods: Saving Our Children From Nature-Deficit Disorder*. Chapel Hill, NC: Algonquin, 2008. Accessed September 28, 2011 from <http://richardlouv.com/books/last-child>.

Louv, Richard. Excerpt from *Last Child in the Woods: Introduction*. Accessed September 28, 2011 from <http://richardlouv.com/books/last-child/excerpt>.

Milano, Kim. "Prevention: The First Line of Defense Against Childhood Obesity." *Zero to Three* 28, No. 1 (2007): 6–11.

"Millions of U.S. Children Low in Vitamin D." New York: Albert Einstein College of Medicine, August 3, 2009. Accessed July 15, 2011 from <http://www.einstein.yu.edu/Home/news.asp?id=392>.

Moore, Robin C., and Clare Cooper Marcus. "Healthy Planet, Healthy Children: Designing Nature into the Daily Spaces of Children." In *Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life*, edited by S.R. Kellert, J. Heerwagen, and M. Mador, 153–203. Hoboken, NJ: Wiley, 2008. http://www.naturalelearning.org/sites/default/files/MooreCooperMarcus_Healthy.pdf.

Naturopathic Health Foundations. "Time Spent Outdoors." Accessed July 15, 2011 from <http://www.naturopathicfoundations.ca/health-facts/determinants-of-health/time-spent-outside>.

Orr, David. Excerpt in *The Biophilia Hypothesis*. Edited by S. R. Kellert and E. O. Wilson. Washington, DC: Island Press, 1995. Accessed September 28, 2011 from <http://www.mkzdk.org/biophilia2.html>.

Post, Jacalyn, Mary Hohmann, and Ann S. Epstein. *Tender Care and Early Learning: Supporting Infants and Toddlers in Child Care Settings*. 2nd ed. Ypsilanti, MI: HighScope Press, 2011.

Rosenow, Nancy. "Learning to Love the Earth . . . and Each Other." In *Spotlight on Young Children and Nature*, edited by Amy Shillady, 4–7. Washington, DC: National Association for the Education of Young Children, 2011.

Sennerstam, R. B. "Absence Due to Illness Among Toddlers in Day-Care Centres in Relation to Child Group Structure." *Public Health* 111, No. 2 (2007): 85–88.

Shillady, Amy. Introduction to *Spotlight on Young Children and Nature*. Edited by Amy Shillady, 2–3. Washington, DC: National Association for the Education of Young Children, 2011.

Thigpen, Betsy. "Outdoor Play: Combating Sedentary Lifestyles." *Zero to Three* 28, no. 1 (2007): 19–23.

Torquati, Julia, Mary M. Gabriel, Julie Jones-Branch, and Jennifer Leeper Miller. "Environmental Education: A Natural Way to Nurture Children's Development and Learning." In *Spotlight on Young Children and Nature*, edited by Amy Shillady, 8–14. Washington, DC: National Association for the Education of Young Children, 2011.

Trister Dodge, Diane, Sherrie Rudick, and Kai-leé Berke. *The Creative Curriculum for Infants, Toddlers & Twos*. Vol. 2, 2nd ed., rev. Washington, DC: Teaching Strategies, 2011.

University of Illinois at Urbana-Champaign. "For kids with ADHD, regular 'green time' is linked to milder symptoms." *ScienceDaily*, September 15, 2011. Accessed September 20, 2011 from <http://www.sciencedaily.com/releases/2011/09/110915113749.htm>.

White, Randy. "Young Children's Relationship with Nature: Its Importance to Children's Development & the Earth's Future." *White Hutchinson Leisure & Learning Group*, 2004. Accessed July 15, 2011 from <http://www.whitehutchinson.com/children/articles/childrennature.shtml>.

Williams, Alyson E. "Exploring the Natural World with Infants and Toddlers in an Urban Setting." In *Spotlight on Young Children and Nature*, edited by Amy Shillady, 20–23. Washington, DC: National Association for the Education of Young Children, 2011.

Additional Information and Resources

Office of Head Start

Early Head Start National Resource Center. *Early Head Start Tip Sheets*. <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start/EHSTipSheets.htm>.

- #29 – *Does Early Head Start Support Math and Science Development with Infants and Toddlers?* (July 2008)
- #48 – *Why Does Time Outside Matter for Very Young Children?* (May 2012)

Early Head Start National Resource Center. *News You Can Use*. <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start/nycu/NewsYouCanUse.htm>.

- *Environment as Curriculum for Infants and Toddlers* (July 2010)
- *Take It Outside* (January 2012)

Early Head Start National Resource Center. Podcasts. <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start/multimedia/podcasts>

- *Outdoor Time Matters for Infants and Toddlers* (2012)

Head Start Body Start: National Center for Physical Development and Outdoor Play
<http://www.aahperd.org/headstartbodystart/>

National Center on Quality Teaching and Learning

- *Nature-Based Learning: The Natural World*
<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eecd/nature-based-learning>

National Center on Program Management and Fiscal Operations

- *Resources for Safe Playgrounds*
<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/facilities/design/equipment/ResourcesforSaf.htm>.

Articles and Resources of Interest

Ball, David, Tim Gill, and Bernard Spiegel. *Managing Risk in Play Provision: Implementation Guide*. London: Crown/Play England/Big Lottery Fund. 2008.
<http://www.playengland.org.uk/media/172644/managing-risk-in-play-provision-implementation-guide.pdf>.

Children and Nature Network. “Children’s Contact with the Outdoors and Nature: A Focus on Educators and Educational Settings.” Children and Nature Network. 2010. <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eecd/nature-based-learning/Research/childrens-contact.htm>.

Children and Nature Network. “Health Benefits to Children from Contact with the Outdoors and Nature.” Children and Nature Network. 2010.
<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start/early-learning/curriculum/InfantsandToddl.htm>.

Sterling Honig, Alice. “Exploring Nature With Your Baby.” *Scholastic*. 2009.
<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start/early-learning/curriculum/ExploringNature.htm>.

Web Sites of Interest

Children & Nature Network
<http://www.childrenandnature.org>

Earth Play
<http://earthplay.net>

Let the Children Play (Search on the term “water wall” for photo examples)
<http://progressiveearlychildhoodeducation.blogspot.com>

Natural Learning Initiative
<http://www.naturalearning.org/content/about-us>

Nature Action Collaborative for Children
www.worldforumfoundation.org/wf/nacc



APPENDIX

CONSIDERATIONS FOR OUTDOOR PLAY SPACES

Access to the outdoor play space

Ideally, each infant–toddler indoor space has access to the outdoor play space.⁴⁵ If there is no direct access, help staff think about ways to transport children. For example, use wagons, buggies, or strollers for nonmobile infants; allow mobile infants and toddlers who can walk short distances to do so. Arrange for additional staff to help the walkers get to the outside space, if needed. If the outdoor play space is at a considerable distance from the program, transport small groups of children using wagons, buggies, or strollers.

If one outdoor play space serves both infants and toddlers, create a separate area for the infants that keeps them safe from toddlers' more active play. Separate the areas by creating a low barrier (More about paths and barriers is given later.) Within the infant area, make sure that there is a protected space for young infants that allows them to look around and move freely; older infants need space for crawling and sturdy objects and rails that they can use to pull themselves up to stand. Remember, outdoor play spaces for infants and toddlers need to meet many different developmental levels.

Another access issue bears mentioning here—that is, convenient access to diapering and hand washing. Yes, routines such as diapering can be done outdoors! If possible, provide a secluded area for diapering and access to water and soap for hand washing. If there is no running water outdoors, make wipes or a pitcher of warm, soapy water and paper towels available. If a sink is available, check with local licensing to make sure that it (and the disposal of its waste water) meets health requirements. If diapering outdoors is not an option and

there is no separate bathroom for toileting right off the outdoor play space, provide coverage for staff who need to take children indoors so that appropriate ratios are maintained.

In home-based programs, talk with families about their access to the outdoors. How often do they take their children outside? What is hard or easy about doing that? Do they have wagons, strollers, buggies, or sleds to transport their children?

Grass or soft ground cover

Soft grass is an ideal surface on which infants and toddlers can sit, lay, crawl, roll, and tumble.⁴⁶ To provide visual and tactile variety, use different types of grasses, cut the grass to different lengths, or even plant moss. Check with a local county agricultural agent or a local nursery to find out what safe, nontoxic natural ground cover grows best in the program's location and what types endure a lot of wear. Some programs use artificial grass. It provides a soft feel, is durable, and does not need a lot of maintenance. However, artificial grass requires good drainage so that water does not pool on the surface.

Covered area that provides shade and protection from rain

Covered areas provide a protected place to play when it rains and a cooler place to play when the weather is hot and sunny.⁴⁷ When planning for shade, think about where the sun is in relation to the outdoor play space. Where are the sunny areas? Are those areas sunny year-round, or do they change with the season? Are there already shady areas? Having this information will help determine the best place to put a covered area.

Programs may already have a permanent covering such as an awning or a covered porch or deck. However, programs can also create more flexible

⁴⁵Lally et al., *Guide to Setting Up Environments*, 56; Post et al., *Tender Care and Early Learning*, 249.

⁴⁶Lally et al., *Guide to Setting Up Environments*, 56.

⁴⁷Lally et al., *Guide to Setting Up Environments*, 58–59.

protected areas, especially for shade, that accommodate the movement of the sun at different times of the year. Such flexible shade covering does not have to be costly. For example, create a large cube structure using long polyvinyl chloride (PVC) pipes. Clip waterproof tarps, sheets, or canvas to the top and sides to create a portable shade structure. A play house with a roof is another portable option.

Some play equipment also needs protection from sun. Slide surfaces, in particular, may become too hot from direct sun contact. Placing slides so that they face north is one way to reduce this direct contact. Slides embedded in the ground may also be cooler. If slides cannot be moved, cover them with waterproof tarps or canvas.

For home-based programs, this is a good opportunity to ask families about what they think about taking their children outside in different weather conditions. It is also a good opportunity to provide information about how best to protect their children in different weather conditions and the fun and benefits of being outside in rain, snow, sun, or wind.

Barriers and pathways

Think about how barriers and pathways function in an indoor space; the same principles apply to outdoor space. Barriers and pathways define spaces for different experiences and direct the flow of traffic between the spaces.⁴⁸ Decide what experiences to offer to infants and toddlers, how much space to allot for each experience, and how children will go from one space to another. Protective barriers between spaces can be created from a variety of materials such as:

- Low rocks or round, smooth boulders
- Low walls or fences
- Poles

- Slatted wooden walkways (wooden platforms about 18 inches wide and 3 inches high, with space between the slats)
- Canvas- or vinyl-covered cushions
- Low shrubs

Mobile infants and toddlers need space to crawl, toddle, walk, and run. Leave some open space for these and other large-motor play experiences such as rolling, throwing, and kicking balls.

In home-based programs, go with families to their local outdoor spaces (e.g., public parks, playgrounds, fields) and evaluate the spaces together. Are there safe spaces to play with their children? What kinds of pathways and barriers protect the space? Interfere with the space? How might families be able to create a safe place for their children to play within these larger spaces?



⁴⁸Lally et al., *Guide to Setting Up Environments*, 57; Post et al., *Tender Care and Early Learning*, 249.

⁴⁹Keeler, *Natural Playscapes*, 74, 91, 112; Lally et al., *Guide to Setting Up Environments*, 58.

Vegetation

Grass, trees, plants, and flowers stimulate children's senses. When selecting vegetation, consider:⁴⁹

- Safety – for example, vegetation that is edible or safe if chewed and swallowed; safe to touch (no thorns on stems or sharp points on leaves);
- Variety of shapes, sizes, and heights;
- Variety of textures – for example, plants with leaves that are smooth, rough, or fuzzy; different types of tree bark;
- Variety of colors – for example, trees and shrubs that stay green year-round; trees with leaves that change color; plants that bloom at different times of the year;
- Variety of scents – for example, plants and flowers that give off scents while growing; herbs that give off scents when dried and crushed;
- Effects in the wind – for example, how it looks when the wind blows; what it sounds like when the wind blows through its leaves;
- Native to the local area – this helps young children identify with the natural beauty of their community; costs less to maintain because vegetation is better suited to the soil and climate and may not need to be treated with chemicals;
- Cultural significance for children, families, and staff – for example, plants that are traditionally used for ceremonies, medicine, and arts such as basket weaving; plants that are familiar to migrant farmworker families; and
- Multiple purposes – for example, trees and shrubs that provide beauty as well as shade; plants such as sunflowers, corn stalks, or tall grasses that act as a natural boundary for a quiet nook while still allowing for visible supervision; plants with branches that can be pruned and woven together to create a crawl tunnel

Gardens are also a good way to incorporate vegeta-

tion in an outdoor play space. They provide infants with plants and flowers to look at, touch, and smell. Toddlers can help with digging in dirt, dropping in seeds, watering, and harvesting. Gardens may be planted directly in the ground or in raised beds. (Make sure that soil is free from any poisonous chemicals such as lead, arsenic, and other toxic contaminants. This is especially important when growing edibles to be shared with infants, toddlers, and pregnant women.) If space is an issue, use the center of tires, planters or other containers, or window boxes. If available, participate in community gardens where children, staff, and families can plant and harvest fruit, vegetables, herbs, and flowers.

In home-based programs, talk with families about vegetation. Are trees, shrubs, plants, and flowers available to them? If not, how might they gain access? What kinds of plants would they choose (and why) if they could have indoor or outdoor plants?



⁴⁹Keeler, *Natural Playscapes*, 68–69; Lally et al., *Guide to Setting Up Environments*, 58.

⁵¹Lally et al., *Guide to Setting Up Environments*, 57–58.

Hills

Hills provide infants and toddlers with many learning opportunities, such as practicing balance, going up and down, and experiencing different heights and vantage points from which to look at the world. Some programs already have hills as part of the outdoor play space. Programs that do not can build small ones using topsoil and seed them with grass. The size and shape of hills will depend on who will use them and the amount of space available. Slides can be built into the sides of hills, and steps can be made from timber or tires.⁵⁰

Texture walks or paths

A texture walk is a pathway or special area with a variety of surfaces that give infants and toddlers different tactile experiences.⁵¹ Programs can use many materials to create the pathways and areas; for example, dirt, sand, bark, wood rounds, patterned rock, sanded planks, half logs, bricks, cobblestones, stepping stones, and rubberized studded tiles. Choose materials that are safe for the age of the child who will be using the path or area. Paths should be about 2 feet wide and each section about 4 feet long. Consider providing railings for children to hold. When creating a texture path or area for mobile infants who crawl, avoid using materials that are too rough. Choose smooth materials such as sanded wood or wood rounds. Different colored grasses or other soft ground covers will also work.

In home-based programs, talk with families about the value of paths and areas with different surfaces or textures and where such places might exist in their communities.

Surfaces for rolling toys

Toddlers love wheeled toys to push, pull, and ride. Smooth surfaces of concrete or blacktop work well for wheeled toys. Consider creating a circular pathway that curves around the outdoor space and is wide enough for two children on wheeled ride-on toys to ride next to each other, as well as for strollers, buggies, wagons, and wheelchairs. Make sure adults can see the pathway from any place in the play space.⁵²

In home-based programs, talk with families about the usefulness of rolling toys for children's development. Do families have rolling toys? If not, how might they get access? If yes, how do their children use them and where? Are the toys safe for children?



⁵²Ibid., 57.

Places for motor exploration

In addition to places and space for crawling, toddling, walking, and running, think about places for climbing and swinging and appropriate equipment to support these experiences.⁵³

Programs have many options. For example, mobile infants and toddlers can climb on the following:

- Cube structures;
- Very low platforms with ramps;
- Half buried tires;
- Smooth round boulders and logs; and
- Small-scale climbing equipment that older toddlers can get on and off without adult assistance (but with adult supervision)

Porch swings, glider swings, and hammocks are ideal places for infants (and toddlers) to swing with adults. Other swing options include cradles and infant bucket swings for infants and two-chain tire swings set low to the ground for older toddlers. The tire swing should only allow a gentle back-and-forth motion.

In home-based programs, talk with families about parks and playgrounds in the community that might provide safe equipment for climbing and swinging.

Places for water and sand play

The outdoors is a perfect place for water and sand play. Water and sand provide endless opportunities for experimentation. Water and sand play are also easy to clean up outside!

There are a variety of ways to safely include water in the outdoor play space.⁵⁴ For example:

- Water sprinklers
- Trickling water sculptures

- Cafeteria trays for young infants
- Small tubs for individual play
- Water tables
- Outdoor sinks made from utility sinks – Cut the legs of the utility sink down to an appropriate height, attach a hose, and place a bucket underneath to collect the water.
- Water walls – A water wall is typically made from a fence or stable piece of plywood on which empty plastic containers are attached with screws or zip ties. The containers should be able to move so that they can catch and dump water as it goes down the wall. A container at the bottom can catch the water for reusing.⁵⁵

Sand play is most appropriate for mobile infants and toddlers. It is commonly done in sand boxes and at sand tables. Sand boxes may be large or small, depending on the amount of space available. A variety of materials can be used to create borders around sand areas, including wooden planks, logs split in half, and low, smooth boulders. Programs may also choose not to have a border around the sand area. Sand should be covered when not in use and checked daily to make sure there are no hazardous objects, insects, or animal feces buried in the sand.

In home-based programs, talk with families about the value of sand and water play and how to keep their children safe while engaging in these activities.

Places for messy experiences

In addition to sand and water play, think about where art experiences may take place and surfaces on which they can happen.⁵⁶ For example, painting can be done on easels, picnic tables, and large sheets of paper fastened to fences or outside walls. Paint brushes and plain water can be used on a

⁵³Greenman, *Caring Spaces, Learning Places*, 301–302; Post et al., *Tender Care and Early Learning*, 249.

⁵⁴Keeler, *Natural Playscapes*, 70–71, 80.

⁵⁵Early Head Start National Resource Center, “Outside Spaces.”

⁵⁶Lally et al., *Guide to Setting Up Environments*, 59.

variety of surfaces. Playing with play dough and clay may work best on surfaces in shady areas where the sun will not dry the play dough or clay too quickly. Toddlers enjoy using large pieces of chalk; smooth, concrete surfaces are ideal for chalk scribbles. Paint, play dough, clay, and chalk scribbles are easily washed away with a hose.

Messy activities (including playing with sand and/or water and digging in dirt) is an important topic to talk about with families, regardless of program option. Some families may not be comfortable with these kinds of activities. It is important for program staff to honor families' views while also communicating the value of these experiences to children's development.

Places for looking at books, making sounds and music, and pretend play

These indoor experiences work just as well outdoors. Think about the places and spaces where they can happen.⁵⁷

Infants and toddlers can look at books almost anywhere; for example, on a blanket in a shady area, in a hammock with an adult, or in a cozy nook. Consider bringing a selection of books outdoors. Books about animals and nature are particularly appropriate for extending learning about the natural world.

Similarly, pretend play can happen in many places. Some outdoor equipment such as playhouses, wheeled ride-on toys, and water hoses naturally lend themselves to pretend play. Staff can also bring indoor materials and equipment outdoors, such as dress-up clothes, dolls, and shopping carts. Another option for encouraging and supporting pretend play is to create a stage. A stage may be as simple as something flat to stand on, such as a low platform or level tree stump, or a sturdy, child-size

table. Make sure the surface accommodates at least two children with enough room to stand next to each other without crowding. A stage may also be more elaborate, such as an amphitheater made from wood or stone with built-in seating.

There are many ways and places where sound and music can be created. Consider how to add various types of sounds, such as loud, soft, big, small, wooden, metallic, and so on. Here are some suggestions:

- Hang wind chimes made from different materials such as metal, wood, and bamboo from tree branches and coverings over shaded areas. Banners or colored cloth streamers also make sounds when they flap in the wind and are interesting to look at, especially for young infants



⁵⁷Keeler, *Natural Playscapes*, 82, 85; Lally et al., *Guide to Setting Up Environments*, 59.

lying on their backs.

- Attach bells and chimes on shrubs, fences, and gates.
- Install a fountain that trickles water.
- Create a sound area. Include homemade instruments such as xylophones made from PVC pipes and pots with wooden sticks for banging. Provide various types and sizes of containers and lids for making shakers using natural materials such as dirt and sticks.⁵⁸
- Plant trees and shrubs that make sounds when the wind blows through their branches and leaves.

In home-based programs, work with families to explore the possibilities for these kinds of activities in their outdoor environments.

Places for sitting with children

Even when outside, infants and toddlers need places to sit and snuggle with the adults who care



about them.⁵⁹ Think strategically about where adults will sit with children. Some seating should be in shady areas. Other seating can be in quiet and active areas; stationary seating in active areas should be at appropriate distances from equipment such as slides, climbers, and swings. In addition to sitting on the ground, consider seating such as low, wooden benches (12 inches high), sculpted logs, low tree stumps, and smooth boulders. Glider swings and hammocks that are good for swinging are also good places to sit with infants and toddlers.

Nooks and hideaway places

Young children need places to take a break from being with the larger group while still being visible to supervising adults.⁶⁰ In an outdoor play space, places to be alone or with one or two other children may take many forms. For example, programs may include a:

- Short tunnel;
- Tent;
- Playhouse;
- Large fabric draped over a picnic table; or
- Small space bordered by bales of straw, tall grasses, or sunflowers

In home-based programs, talk with families about the purpose of hideaway places. Do families have these for their children? Where? Do they feel safe letting their children use corners, doorways, or large boxes to hide in?

Storage

Storage is an important, practical design element. When storage is convenient, setting up and cleaning up the outdoor play space are easier. Think about what needs to be stored and the best place to put a storage system.⁶¹ Loose outdoor toys and equipment may be stored in sheds or watertight

⁵⁸Early Head Start National Resource Center, "Outside Spaces."

⁵⁹Greenman, *Caring Spaces, Learning Places*, 301; Keeler, *Natural Playscapes*, 90.

⁶⁰Keeler, *Natural Playscapes*, 87; Thigpen, "Outdoor Play: Combating Sedentary Lifestyles," 21.

⁶¹Greenman, *Caring Spaces, Learning Places*, 303.

containers. Indoor toys and materials that are used outside may be stored in a variety of containers such as duffel bags, baskets, and buckets with handles. Containers with straps or handles are easy for staff to carry, and toddlers can help carry them, too. Utility carts and wheeled luggage bags are also good storage options and are easy to move to and from the outdoor play space.

Storage is also an important consideration for families in home-based programs. Containers with straps or handles are equally useful for families.

REFERENCES

- Early Head Start National Resource Center. *News You Can Use: Outdoor Spaces*, March 2012.
<https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start/early-learning/curriculum/NewsOutdoor.htm>.
- Greenman, Jim. *Caring Spaces, Learning Places: Children's Environments That Work*. Redmond, WA: Exchange Press, 2005.
- Keeler, Rusty. *Natural Playscapes: Creating Outdoor Play Environments for the Soul*. Redmond, WA: Exchange Press, 2008.
- Lally, J. Ronald, Jay Stewart, and Deborah Greenwald. *A Guide to Setting Up Environments*. 2nd ed. Sacramento, CA: California Department of Education and WestEd, 2009.
- Post, Jacalyn, Mary Hohmann, and Ann S. Epstein. *Tender Care and Early Learning: Supporting Infants and Toddlers in Child Care Settings*. 2nd ed. Ypsilanti, MI: HighScope Press, 2011.
- Thigpen, Betsy. "Outdoor Play: Combating Sedentary Lifestyles." *Zero to Three* 28, no. 1 (2007): 19–23.





EARLY HEAD START

National Resource Center